CONSOLIDATED RESOURCES LLC

December 13, 2013

Mr. Terry Kobs
U.S. Army Corps of Engineers
1104 North Westover Road, Suite 109
Albany, GA 31707

RE: Kolomoki: Spring Creek Mitigation Area
Year 3 Wetland Monitoring Report
USACE Permit 200410120
Applicant: Kolomoki Farm, LLC

Dear Terry:

Enclosed please find the Y3 Wetland Mitigation Monitoring Report for the above-referenced project. This report is a summary of the monitoring activities and actions performed during 2012. Spring Creek Mitigation Area (SCMA) is located along U.S. Highway 27 approximately 3 miles south of Bluffton and 8.5 miles north of Blakely, Georgia.

Overall, the mitigation bank is progressing in accordance with the terms of the Banking Instrument. We are requesting that the 15% release of wetland credits be conducted with approval of this report.

Please review the attached document and let me know if you have any questions. We appreciate your assistance with this project. In addition to this hardcopy, I will email a digital file for your records.

Sincerely,
Consolidated Resources, LLC

Stacy Mote
Senior Environmental Scientist

Enclosures

cc: Eric Somerville, US EPA
Sandy Abbott, USFWS
Jim Butler
Tom Holmes

2029 5th Avenue - Columbus – Georgia – 31904
Phone: (706) 317-5942 Fax: (706) 571-0726

Kolomoki Mitigation Bank, Spring Creek Mitigation Area

Third Year Wetland Monitoring Report

(Quantitative Analysis)

January 2012 through December 2012

Prepared for:

Kolomoki Farm, LLC
Post Office Box 2766
Columbus, Georgia 31902

USACE File Number 200410120

Prepared by:
Consolidated Resources, LLC
2029 5th Avenue, Columbus, GA 31904
Phone: 706-317-5942 Fax: 706-571-0726

KOLOMOKI MITIGATION BANK

SPRING CREEK MITIGATION AREA

Third Year Wetland Monitoring Report

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I. PROJECT OVERVIEW

ACOE Permit: 200410120

Sponsor: Kolomoki Farm, LLC
706-322-1990
P.O. Box 2766
Columbus, GA 31902

Agent: Stacy Mote, Consolidated Resources, LLC
706-317-5942
2029 5th Avenue
Columbus, GA 31904

The Spring Creek Mitigation Area (SCMA) is located near U.S. Highway 27 approximately 3 miles south of Bluffton, and 8.5 miles north of Blakely, Georgia (31°29'2" latitude and 84°51'40" longitude). North of Jack Slayton Road there are approximately 47 acres of wetlands along Spring Creek that are included in the SCMA as wetland preservation. All enhancement and restoration activities occurred south of Jack Slayton Road (Figure 1, Appendix A). The primary mitigation goal for the SCMA is to restore the original matrix of bottomland hardwood, floodplain forests, cypress/blackgum forests, and streams that existed in the area before the land was managed for agricultural and silvicultural purposes. The primary mitigation action was removal of the dam and culverts on tributaries to Spring Creek. Approximately 186 acres of wetlands were preserved, enhanced, or restored within the Spring Creek project.

Site preparation and dam removal was completed in October 2008. Planting of wetland trees and shrubs was completed in March 2010. Bare root seedlings were planted at a density of 302 trees per acre for a total of 20,762 trees (based on percentage of each wetland area planted as per the SOP). Year 3 wetland monitoring occurred July 23rd through July 26th, 2012. Stream data will be provided under a separate cover to allow for inclusion of macroinvertebrate data.

Recommendations in the Y2 report included supplemental planting in areas that underwent nuisance species removal, incidental mowing, and corrective management work (near MS-6, wetland head near T1B, and along riparian buffer of T1B). The T1B riparian area will be discussed in the stream report. In March 2012, supplemental planting of 500 hardwood saplings were installed near MS-6 and southwest of MS-10. One additional wetland monitoring station was installed in 2012 after the supplemental planting (MS-12). In addition, harrowing the boundary once a year to prevent encroachment was recommended; however, during Y3 monitoring, incidental mowing was observed within MS-2. A decision was made to increase the harrowing of the boundary to twice a year and flag out the boundary of MS-2 for easy visual for hunters accessing W4. Since thick vegetation was obscuring some of the boundary markers, tall PVC pipes were placed on several of the t-bars

To date, the majority of the SCMA stations are meeting the performance standards set forth by the Final Banking Instrument. While a few of the monitoring stations were slightly off target, the average of the monitoring stations meets the performance standards set forth by the BI. Recommendations for the SCMA are to continue monitoring the area for success criteria in 2014 (Year 5).

II. MONITORING REQUIREMENTS AND PERFORMANCE STANDARDS

Wetland monitoring requirements include documentation of vegetation survival, density, species composition, vegetative growth, hydrology, and evidence of wildlife usage during Years 1, 3, 5, and 7 after mitigation implementation (as outlined in the BI). Volunteer trees and shrubs were counted toward the station densities if they were at least 18" in height (planted trees were marked and numbered during time of installation so that volunteer species could be added and tracked when appropriate). Classification of the strata (canopy, subcanopy, shrub, or herbaceous) used standards outlined in the Regional Supplement to the ACOE Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (V 2.0), Nov 2010.

The SCMA is reviewed on an annual basis to determine if nuisance/invasive species are a potential threat to the success of the mitigation area. Nuisance vegetation was not counted or measured during the monitoring event since the species are subject to removal

The Excellent Monitoring Plan also requires reference site comparison monitoring. There are two wetland vegetative reference sites established within SCMA: R1 is transitional and R2 is mature. Each of these stations is approximately 0.10 acre in size. The hydrological monitoring station located in the Dry Creek Mitigation Area was used as the reference well.

Photographs were taken to visually document temporal changes (Appendix B). Approximately 1% of the planted mitigation area was sampled over eight wetland monitoring stations. Depending on the community being sampled, station size varied between 0.10 and 0.26 acre. The locations of all current monitoring stations are shown in Figure 2.

Success criteria for the Palustrine Forested mitigation area include a fully stocked diverse stand of trees with adequate growth and survival. Hydrology success requires meeting the ACOE criterion and falling within 15% of the reference station degree, duration, and periodicity.

If the SCMA is not meeting the success criteria listed in the Banking Instrument (Table 1) contingency actions such as additional planting of hardwood saplings and/or thinning species that may be inhibiting the survival of planted species may be utilized.

III. RESULTS

The success criteria and corresponding monitoring results are summarized in Table 1. The specific categories are discussed in further detail below.

Table 1. Success Criteria and Project Results for 2012

Category	Success Criteria	2012 Results (Year 3)
Sapling Survival	-302 trees/acre installed -225 trees/acre at end of 3 years (75%) -150 trees/acre at end of 5 years (50%) -125 trees/acre at end of 7 years (25%)	Avg. 335 trees/acre* 2 stations under Y3 goal 6 stations exceed Y3 goal
Sapling Growth	-Double in height in 3-5 years -Noticeable positive change in girth	5 stations met or exceeded goal 3 stations have not yet met goal
Sapling Diversity	-No 1-2 tree species dominating an area (except Cypress-Tupelo systems)	4 to 9 species were found at each station. No monocultures
Hydrologic Success	-Saturation in the upper 12 inches of soil for 14 consecutive days during the growing season. -Hydrology should match within 15% of the reference well levels for Periodicity, Duration and Degree after 7 years.	SL1 met the basic hydrologic success criterion and SL2 did not.

*Adjusted Density Results see below for explanation

Following the baseline assessment, it was determined that proportionately there are not 302 trees/acre represented at each wetland monitoring station. However, the correct number of trees was planted within each wetland as evidenced by initial planting receipts and documentation. This difference occurred because of random monitoring station selection and a planting schematic calling for cluster grouping.

Thus in order to make the monitoring results comparable to monitoring standards a scaling factor was applied to tree counts from each station. The scaling factor was created by adjusting the number of trees necessary to equal 302 trees/acre. For instance, at baseline MS-1 had 28 trees per 0.26 acre (108 trees/acre). At the required planting density, this station should have had 79 trees. MS-1 was "scaled" by adding another 51 trees so that the results can more easily be compared to the required densities. This scaling factor will remain constant throughout the monitoring of the mitigation bank to facilitate a more accurate comparison from year to year.

A. Woody Plant Data – Sapling Monitoring

A total of 177 saplings were installed within the 8 monitoring stations and a total of 221 (live) planted and recruited saplings were counted during the third monitoring period. The average scaled density for the SCMA is 335 trees/acre. A complete inventory of planted species is provided in Appendix C.

Table 2. Density for Species By Station

Wetland Monitoring Stations	Number Planted Baseline	Scaling Factor 2009	Counted 2012 Y1	Scaled 2012 Y1	Plot Size (acre)	Density Trees/Acre	Meets Success Criteria Y/N
MS 1	28	51	35*	86	.26	331	Y
MS 2	28	2	19	21	.1	210	N
MS 3	25	5	11	16	.1	160	N
MS 4	16	14	28*	42	.1	420	Y
MS 5	33	46	53*	99	.26	381	Y
MS 6	14	16	25*	42	.1	420	Y
MS 10	13	17	35*	52	.1	520	Y
MS 12	20	10	15	25	.1	250	Y
TOTAL	**177**	**–**	**221**	**382**	**1.12**	**335**	

*Tree count exceeds original number planted due to volunteer species counted towards success. Note: Adjusted by adding trees per station as described in Section III

Monitoring Stations 1, 4, 5, 6, 10, and 12 meet or exceed the Y3 density requirements (225 trees/acre). MS 2 is slightly below (7%) the Y3 density requirement at 210 trees/acre. MS 3 is at 70% of the density requirements. Bald cypress (*Taxodium distichum*) and oaks (*Quercus* spp.) had the most loss of individuals over the last three years. Significant regeneration of green ash (*Fraxinus pennsylvanica*), red maple (*Acer rubrum*), button bush (*Occidentalis cephalanthus*), and bald cypress was observed throughout the SCMA. Currently, there is an average of 1:1 ratio of planted vs. volunteer trees throughout the monitoring stations.

A diverse stand of trees was observed throughout the SCMA. Fifteen tree and shrub species were planted throughout the SCMA wetland restoration/enhancement areas and twenty species were identified (although the species composition changed) during the Y3 monitoring event. Each monitoring station was represented by four to nine different tree species; and the most prevalent species (bald cypress) was found primarily at MS 5 where there was significant natural recruitment. Red maple, button bush, and cherry bark oak (*Quercus pagoda*) had the next highest amount of individuals present in the monitoring stations.

Measurements of average height and girth of planted saplings, shown for Year 3 in Table 3 below, are compared to measurements taken during the Year 1 monitoring period. Average height of trees has doubled during the last three years with 62% of the stations (MS 1, MS 2, MS 4, MS 5, and MS 6) meeting or exceeding the standard. The remaining stations are close to doubling (at least 35% increase in growth) in height. The trees with the most vertical growth are southern sugar maple (*Acer barbatum)* and riverbirch (*Betula nigra)* with almost 7.5' and 6.5' vertical increase, respectively. Red oak and swamp chestnut oak (*Quercus falcata* and *Quercus*

michauxii) are known for slow growth and averaged 1.88' and 1.35' respectively. May haw (*Crataegus opaca*) had the least amount of vertical growth (1.0') over the last three years. Average girth of trees has shown a slight increase and/or stayed the same as previous years.

Table 3: Average Growth Measurements of Saplings

Monitoring Station	2010 Avg. Height (feet)	2012 Avg. Height (feet)	2010 Avg. Girth (inches)	2012 Avg. Girth (Inches)
MS 1	1.95	4.20	.25	.30
MS 2	1.95	4.15	.45	.45
MS 3	2.53	3.72	.25	.25
MS 4	3.39	7.23	.43	.47
MS 5	2.35	5.27	.25	.38
MS 6	1.74	5.12	.25	.31
MS 10	3.0	5.56	.25	.36
MS 12	1.64	2.16	.25	.25

In addition to the species cited above, black willow (*Salix nigra*) accounted for greater than 10% of the coverage at Monitoring Stations 5 and 10. No other nuisance or invasive species were located within the monitoring stations.

The reference stations (R-1 and R-2) had nine and four species within the monitoring plots, respectively. Green ash was the most prevalent species in R-1 and ironwood (*Carpinus carolinana*) was the most prevalent species in R-2. Woody vegetation within R-1 consisted of 50% canopy trees, 7% subcanopy, 19% shrubs and 24% herbaceous category; while R-2 was composed of 70% canopy trees, 10% subcanopy, and 20% shrubs. There was approximately 4% mortality at R-1 and 7% mortality at R-2.

B. Herbaceous Vegetation Monitoring

Each monitoring station was photographed to document visual assessment of ground cover. These photographs are included in Appendix B. This assessment allows for observation of general trends within a wetland community, nuisance species encroachment, and early discovery of erosion issues. Herbaceous recruitment was prevalent and varied depending on site conditions at monitoring stations. Within the enhanced/restored wetlands there was an abundance of soft rush (*Juncus effusus*), Jack-in-the-pulpit (*Ariseame triphyllum),* cinnamon fern (*Osmunda cinnamomea*), arrow arum (*Peltandra virginica*), polygonum (*Polygonum* spp.), bulrush (*Scirpus* spp.), sedge (*Carex* spp.), and various grasses. All monitoring stations had 75% or greater herbaceous vegetation cover and no erosion problems were detected. Both reference stations had minimal herbaceous coverage (15%).

C. Hydrologic Monitoring

The ground water data from the monitoring wells are shown in Appendix D; daily measurements of ground water depth are shown for January 1, 2012 through November 2, 2012. Monthly rainfall records for the same period show a rainfall deficit of approximately 6.5" (Appendix D. The Dry Creek reference well and monitoring well SL2 had surface inundation or saturation of the upper 12 inches for at least 14 consecutive days during the growing season (February 23 through December 2) and SL1 had surface inundation or saturation of the upper 12 inches for 13 consecutive days during the growing season. SL1 averaged 43.00 inches below the surface level, SL2 averaged 30.00 inches, and the reference well averaged 25.00 for the year. SL2 was within 15% of periodicity, duration, and degree of the reference well.

D. Photographic Monitoring

See Appendix B for representative photographs showing views of the mitigation area, monitoring stations, and tree/shrub species. Photographs were also taken from the four cardinal directions surrounding the vegetation monitoring stations and individual plants to show the representative health classification of planted trees. While all photos are not used for this report, they are stored at the office of Consolidated Resources, LLC.

E. Wildlife Utilization

Wildlife utilization methodology included visual and audible observations of tracks, calls, scat, or actual sightings of wildlife species. Biologists observed wildlife during morning and afternoon periods while conducting tree sampling. Wildlife species observed in the mitigation area included frequent use by a variety of birds, mammals, reptiles, amphibians, and insects (Appendix E).

IV. CONCLUSIONS AND RECOMMENDATIONS

To date, the majority of the SCMA stations are meeting the performance standards set forth by the Final Banking Instrument. While a few of the monitoring stations were slightly off target, the average of the monitoring stations meets the performance standards set forth by the BI. We are requesting a full credit release for Year 3.

Six of the eight wetland monitoring stations met the success criteria (225 trees/acre) for sapling density. Significant regeneration of wetland saplings and shrubs is occurring within the mitigation areas and has helped the density numbers greatly exceed requirements. The average of 335 trees/acre amongst the wetland monitoring stations correlates with densities of the mature reference station. The mature reference station (R-2) has a density of 300/acre and the

transitional reference station (R-1) has a density of 1080/acre. It is likely that competition will eventually decrease the total number of individual hard woods present in the stations. However, it is possible as the systems grow over the next two years densities may increase and/or species composition shift. Successional/transitional systems tend to be more influenced by temperature, rainfall, seed drop rates, and other external stimuli.

Monitoring Stations 2 and 3 had the lowest survival rate (68% and 44%) since planting and are the only two stations which did not meet density requirements (210 and 160/acre respectively). Survival rates are calculated using total numbers and do not reflect the survival of individual specimens. There was only one dead sapling found at MS 2, the remaining saplings (5) that caused a low density/survival rate were not found. MS 3 had 6 dead saplings and 2 saplings that could not be found. It is possible that as the saplings grow and successional vegetation decreases, some/all of the missing saplings will be located in the future. MS-3 is located just at the edge of a mature wetland and showed signs of wildlife browsing and MS 2 was impacted during accidental mowing in 2012 (hunter used mowed trail to access deer stand). The boundary of this station was flagged out and discussions were had with the farm manager to alert the employees to be aware of this station. Scheduling for harrowing of the bank boundary was increased to twice a year. Both stations are adjacent to canopy and sub-canopy species that are quick growing seed producers and these stations would likely get natural recruitment. Hardwoods saplings that did not meet the criteria for success during Year 3 may likely meet the height requirement during Year 5 monitoring. Although these two stations are not currently meeting the target for Year 3, there are no environmental factors that suggest these stations will not meet the Year 5 density target of 150/acre.

The majority of the planted saplings have increased in height over the last three years (62% of stations), with an average growth of planted species at 2.1 feet. The naturally recruited species grew the most in height with over 6.5 feet, on average. Many of these species are initial successors and are designed for quick vertical growth to increase their chance at survival. As anticipated, the slower growing oaks (swamp chestnut oak and red oak) and the mayhaw had the least amount of vertical growth. It is likely that these species will continue to obtain rich nutrients from the soil and provide forage and cover for wildlife.

There was not a significant change in girth of the hardwoods measured in the monitoring stations. Often in wetland hardwood species similar to those planted, girth does not see a significant increase until after the saplings have stabilized with a sufficient root system. At the point when the roots have caught up with the vertical growth, the saplings' girth will make more of a noticeable change. In addition, girth is measured in set increments (0.1, 0.25, 0.50, etc.) and minor changes are not easily recorded with the calipers being used. Girth numbers are also

affected by the increase of species in a monitoring station due to natural recruitment or the loss of species.

The hardwood species composition ranged from four species at two stations (MS 5 and MS-12) to nine species at MS 10. The reference stations, RS-1 and RS-2, had 4 and 9 tree species present, respectively. RS-1 is a transitional wetland near a seed source of fast growing tree species. Although there were two stations with black willow present (MS-5 and MS-10), these individuals were not in sufficient quantity to warrant a remedial action plan. Black willow is a common plant in successional areas and does not typically eliminate other desirable competing wetland species. Species present are representative of local native hardwood systems and no one or two tree species dominate the mitigation site. Upon maturity, the trees present will provide suitable forage and shelter to the wetland fauna.

There was sufficient herbaceous cover and stable soil types to minimize any potential erosion possibilities. Because the monitoring stations are lacking canopy at this time, the herbaceous layer is diverse and representative of a successional community. The past land use, dry conditions, and available seed source supported plentiful communities of golden rod (*Solidago* spp.), dog fennel (*Eupatorium* spp.), grasses, and sedges. Over time, this stratum will change with increasing shade. Minimal herbaceous coverage was observed within the reference stations. The dense canopy cover shades out most herbaceous species.

The reference well is located in a wetland associated with the Dry Creek Mitigation Area of Kolomoki Mitigation Bank approximately four miles west of the SCMA. This wetland is similar in vegetation to Spring Creek wetlands; however, it is in the upstream portion of the Dry Creek drainage basin and may experience different variables. Comparison of groundwater levels in these two different drainage basins requires some interpolation and further understanding of the ecosystems.

During 2012, there was an annual rainfall deficit of approximately four inches. Although the rainfall increased from the previous year (-18.69" to -4.45"), the intermittent and perennial streams remained dry. Dry conditions also prompt local farmers to withdraw more groundwater to irrigate their crops. Even though the wetland soils work to hold water, many of the wetland stations remained dry throughout the growing season. SL2 and the reference well experienced the wettest conditions during early spring (Feb-April) 2012. This is likely in response to the wettest month of the year falling in March with just over 7 inches of rain and limited to no irrigation demands for crops.

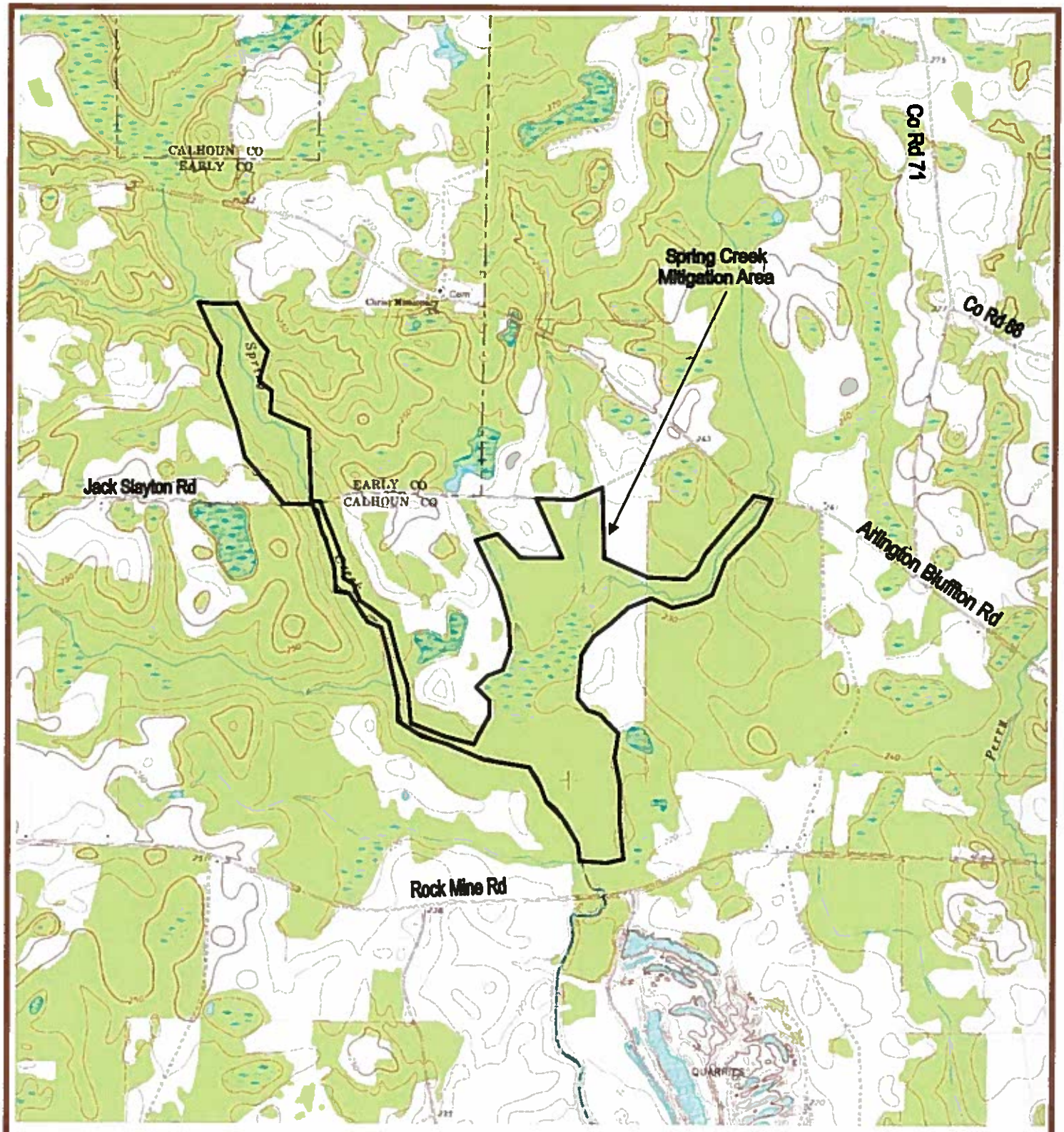
SL1 fell short of meeting the standard ACOE hydrology criterion by one day and less than 2 inches. SL1 did have three periods (6, 13, and 2 days) in the growing season where the water was at or above -12.0" and 5 of those days the water was ponded. SL2 experienced one period (45 days) where the water was at or above -12.0" with most of the days water averaged -

7.5". The reference well had four periods from January through April with a total of 65 days where the hydrology criteria were met and the water depth averaged -8.0".

This report provides data for future comparison and evaluation of mitigation success. It is expected that with further monitoring, the progression of the enhancement and restoration areas into diverse, healthy, functioning wetland systems will continue to progress. Monitoring will continue in Year 4 and there are no contingency plans proposed at this time. Any invasive species observed during Year 4 quarterly inspections will be marked for removal (if deemed necessary) and the mitigation bank boundary will be harrowed twice during Year 4.

APPENDIX A

FIGURES



SOURCE: USGS Bancroft Quadrangle, 1973

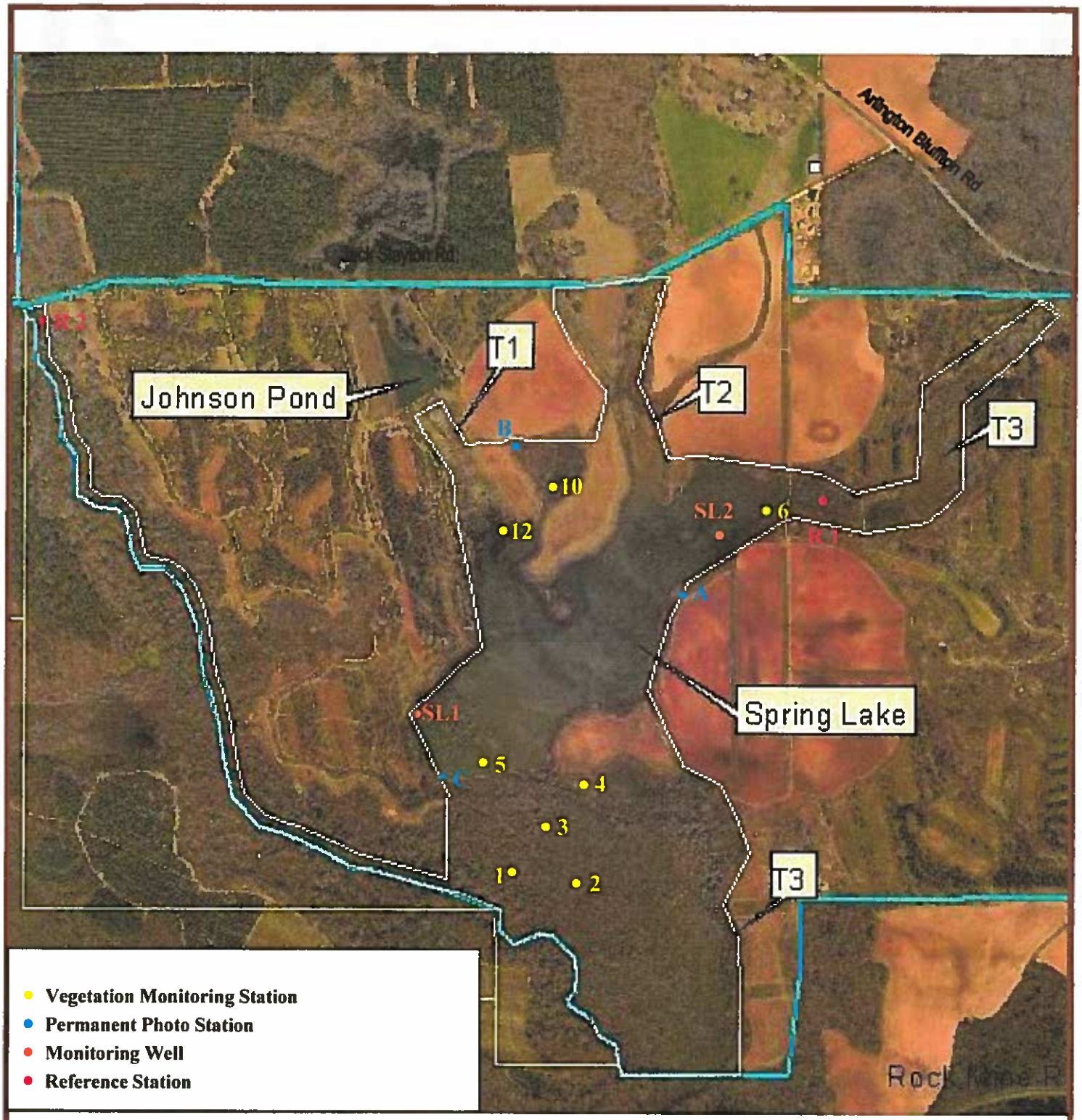
CONSOLIDATED RESOURCES LLC

Figure 1
Location Map

Not To Scale

Kolomoki Mitigation Bank
Spring Creek Area

2029 5TH Avenue
Columbus, Georgia 31904
Phone: 706-317-5942 Fax: 706-571-0726



SOURCE: Google Earth

CONSOLIDATED RESOURCES LLC

Figure 2
Monitoring Station Locations

Not To Scale

Kolomoki Mitigation Bank
Spring Creek Area

2029 5TH Avenue
Columbus, Georgia 31904
Phone: 706-317-5942 Fax: 706-571-0726

APPENIX B

SITE PHOTOGRAPHS

Photo 1 – Monitoring Station R1, facing north.

Photo 2 – Monitoring Station R1, facing south.

Photo 3 – Monitoring Station R1, facing east.

Photo 4 – Monitoring Station R1, facing west.

Photo 5 – Monitoring Station R2, facing north.

Photo 6 – Monitoring Station R2, facing south.

Photo 7– Monitoring Station R2, facing east.

Photo 8 – Monitoring Station R2, facing west.

Photo 9 – Monitoring Station 1, facing north.

Photo 10 – Monitoring Station 1, facing south.

Photo 11 – Monitoring Station 1, facing east.

Photo 12 – Monitoring Station 1, facing west.

Photo 13 – Monitoring Station 2, facing north.

Photo 14 – Monitoring Station 2, facing south.

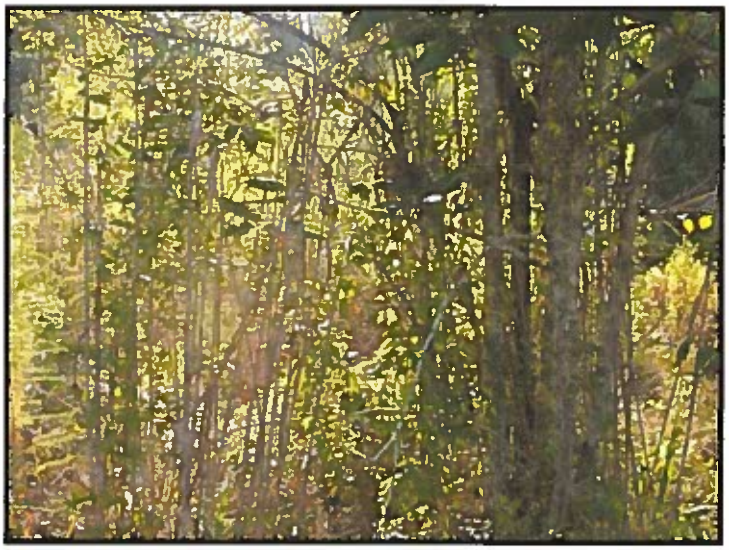


Photo 15 – Monitoring Station 2, facing east.

Photo 16 – Monitoring Station 2, facing west.

Photo 17 – Monitoring Station 3, facing north.

Photo 18 – Monitoring Station 3, facing south.

Photo 19– Monitoring Station 3, facing east.

Photo 20 – Monitoring Station 3, facing west.

Photo 21 – Monitoring Station 4, facing north.

Photo 22 – Monitoring Station 4, facing south.

Photo 23 – Monitoring Station 4, facing east.

Photo 24 – Monitoring Station 4, facing west.

Photo 25 – Monitoring Station 5, facing north.

Photo 26 – Monitoring Station 5, facing south.

Photo 27 – Monitoring Station 5, facing east.

Photo 28 – Monitoring Station 5, facing west.

Photo 29 – Monitoring Station 6, facing north.

Photo 30 – Monitoring Station 6, facing south.

Photo 31– Monitoring Station 6, facing east.

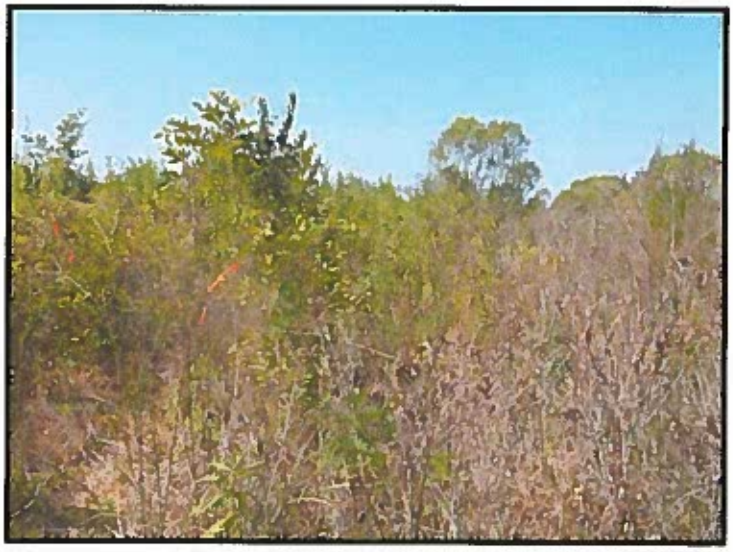


Photo 32 – Monitoring Station 6, facing west.

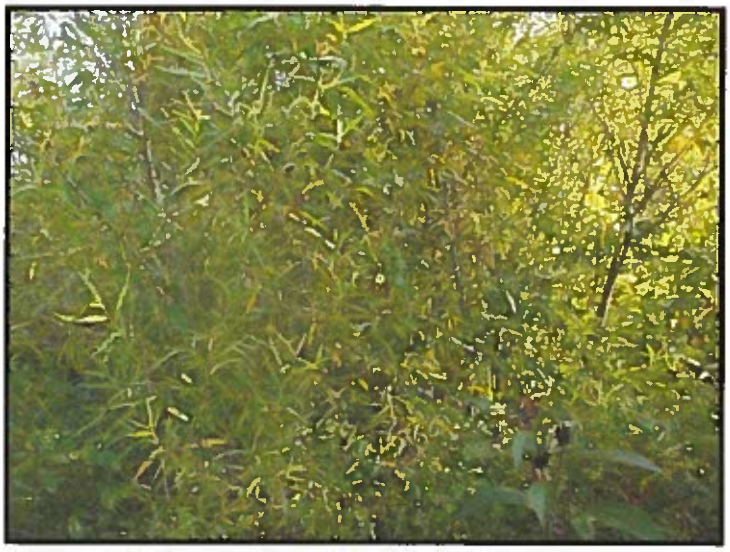


Photo 33 – Monitoring Station 10, facing north.

Photo 34 – Monitoring Station 10, facing south.

Photo 35 – Monitoring Station 10, facing east.

Photo 36 – Monitoring Station 10, facing west.

Photo 37 – Monitoring Station 12, facing north.

Photo 38 – Monitoring Station 12, facing south.

Photo 39– Monitoring Station 12, facing east.

Photo 40 – Monitoring Station 12, facing west.

Photo 41 – Representative photo of healthy swamp chestnut oak.

Photo 42 – Representative photo of stressed bald cypress within MS-5.

Photo 43– Dry drainage near wetland MS-10.

APPENDIX C

PLANTING INDEX

Planting Index
Tree Species Planted within SCMA Wetland Restoration/Enhancement Areas

Scientific Name	Common Name
Betula nigra	Riverbirch
Carya aquatica	Water Hickory
Cephalanthus occidentalis	Buttonbush
Fraxinus pennsylvanica	Green Ash
Nyssa aquatica	Water Tupelo
Nyssa biflora	Swamp Tupelo
Persea borbonia	Red Bay
Quercus falcatea pagoda	Cherry Bark Oak
Quercus laurifolia	Laurel Oak
Quercus lyrata	Overcup Oak
Quercus michauxii	Swamp Chestnut Oak
Quercus nigra	Water Oak
Quercus phellos	Willow Oak
Quercus shumardii	Shumard Oak
Taxodium distichum	Bald Cypress

APPENDIX D

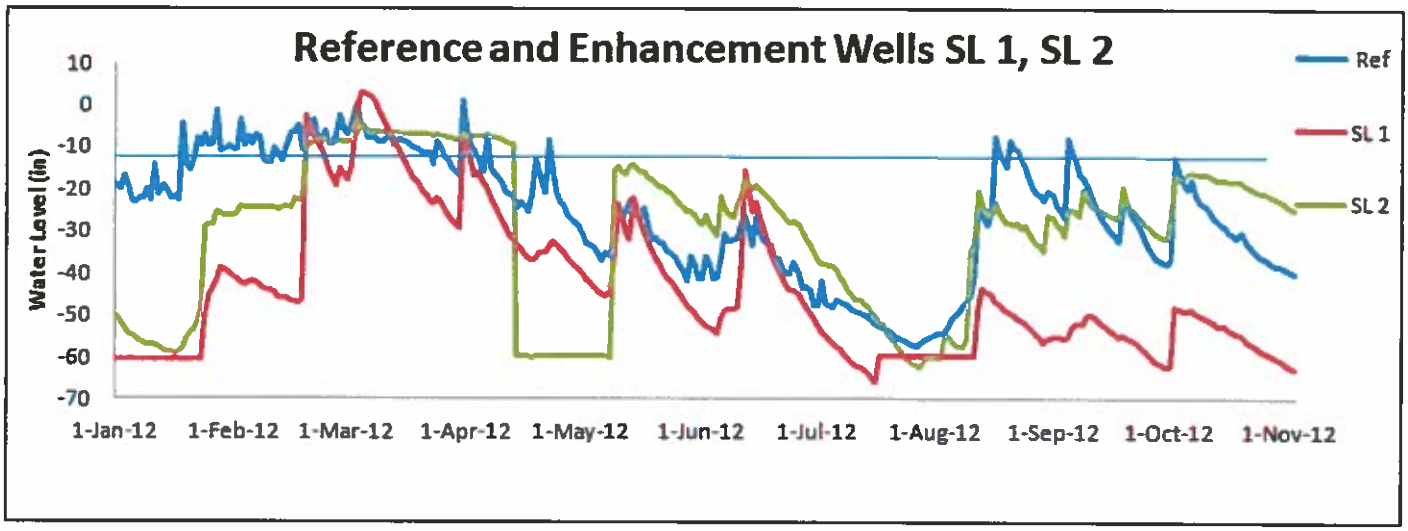
MONITORING WELL DATA/RAINFALL DATA

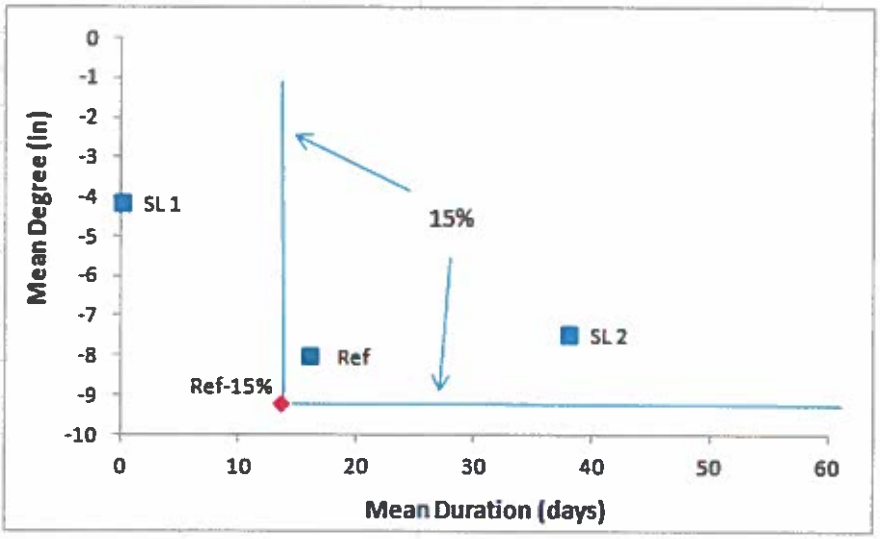
Appendix D
Monthly Rainfall Data Arlington Station
Annual Monitoring Report - Year 3
Kolomoki Mitigation Bank, Spring Creek Mitigation Area

Month	Station*	Normal	Actual	Difference	# of Days w/ Precipitation
Jan-12	Arlington	3.75	2.52	-1.23	10.00
Feb-12	Arlington	4.05	3.77	-0.28	9.00
Mar-12	Arlington	5.31	7.04	1.73	8.00
Apr-12	Arlington	4.73	2.79	-1.94	5.00
May-12	Arlington	5.75	3.72	-2.03	15.00
Jun-12	Arlington	3.81	5.46	1.65	13.00
Jul-12	Arlington	3.23	4.02	0.79	9.00
Aug-12	Arlington	3.97	6.69	2.72	19.00
Sep-12	Arlington	5.36	3.71	-1.65	8.00
Oct-12	Arlington	3.64	0.82	-2.82	4.00
Nov-12	Arlington	3.52	1.04	-2.48	5.00
Dec-12	Arlington	2.48	3.57	1.09	14.00
Total Rainfall for 2012		49.60	45.15	-4.45	119.00

Georgia Automated Environmental Monitoring Station
*Closest available station to Kolomoki Mitigation Bank

Appendix D
Year 3 - Monitoring Well Data
2012





APPENDIX E

WILDLIFE UTILIZATION

Scientific Name	Common Name
Amphibians/Reptiles	
Agkistrodon piscivorus	eastern cottonmouth[1]
Alligator mississippiensis	American alligator[1]
Anolis carolinensis	green anole[1]
Chelydra serpentina	snapping turtle[1]
Coluber constrictor priapus	southern black racer[1]
Crotalus adamanteus	eastern diamondback rattlesnake[1]
Crotalus horridus	timber rattlesnake[1]
Elaphe obsolete spiloides	Grey rat snake[1]
Hyla cinerea	green tree frog[1]
Hyla versicolor	gray treefrog[1]
Nerodia sipedon pleuralis	Midland water snake[1]
Opheodrys vernalis	rough green snake[1]
Rana catesbeiana	American bullfrog [1,2]
Rana uticularia	southern leopard frog[1]
Regina septemvittata	queen snake[1]
Sceloporus undulatus	eastern fence lizard[1]
Terrapene carolina carolina	eastern box turtle[1]
Trachemys scripta scripta	yellowbelly pond slider[1]
Birds	
Agelaius phoeniceus	red-winged blackbird[1,2]
Ardea alba	great egret[1]
Ardea herodius	great blue heron[1]
Buteo jamaicensis	red-tailed hawk[1]
Cardinalis cardinalis	northern cardinal [1,2]
Cathartes atratus	black vulture[1]
Cathartes aura	turkey vulture[1]
Circus cyaneus	northern harrier[1]
Colaptes auratus	northern flicker[1,2]
Colinus virginianus	bob-white quail [1,2]
Corvus americana	American crow [1,2]
Cyanocitta cristata	bluejay [1,2]
Haliaeetus leucocephalus	bald eagle[1]
Melanerpes carolinus	red-bellied woodpecker[1]
Mimus polyglottos	northern mockingbird[1]
Mycteria americana	wood stork[1]
Pandion haliaetus	osprey[1]
Picoides pubescens	downy woodpecker[1,2]
Pipilo erythrophthalmus	eastern towhee[1,2]
Sayornis phoebe	eastern phoebe[1]
Sialia sialis	eastern bluebird[1,2]
Spizella passerina	chipping sparrow[1,2]
Spizella pusilla	field sparrow[1,2]
Strix varia	barred owl[1,2]
Thryothorus ludovicianus	Carolina wren[1]
Vireo griseus	white eyed vireo[2]
Zenaida macroura	mourning dove[1,2]

Invertebrates	
Acheta domestica	field cricket
Acrididae	grasshopper
Anax junius	green darner
Apis mellifera	honeybee[1,2]
Argiope aurantia	black and yellow argioper[1]
Biorhiza pallida	gall wasp[1]
Cambarus spp	crayfish[1]
Coccilidae spp.	ladybug[1]
Culicidae spp.	mosquito[1]
Dasymutilla occidentalis	velvet ant
Diptera	gnat[1]
Dytiscus spp.	diving beetle[1]
Erythroneura comes	scarlet and green leafhopper
Gasteracantha elipsoides	crablike spiny orb weaver[1]
Gerris remigis	common water strider
Ixodidae	tick
Leptoglossus phyllopus	leaf-footed beetle[1]
Lycosidae	wolf spider[1]
Nephila clavipes	golden-silk spider
Pachydiplax longipennis	Swift long-winged skimmer
Papilio glaucus	Eastern tiger swallowtail[1]
Papilio troilus	spicebush swallowtail[1]
Phoebis sennae	cloudless sulphur
Photinus pyralis	firefly
Polistes carolina	red wasp[1]
Solenopsis geminata	fire ant[1]
Tetragnatha laboriosa	long -jawed orb weaver
Tipula spp.	crane fly
Vespula spp.	yellow jacket[1]
Mammals	
Canis latrans	coyote[3]
Didelphis virginiana	Virginia opposum[3]
Felis rufus	bobcat[3]
Odocoileus virginianus	white-tailed deer[3]
Procyon lotor	common raccoon[3]
Sciurus carolinensis	eastern gray squirrel[1]
Sciurus niger	eastern fox squirrel[1]
Sigmodon hispidus	hispid cotton rat[1]
Sylvilagus floridanus	eastern cottontail[1]
Sylvilagus palustris	marsh rabbit[3]

[1]Visual, [2]Audible, [3]Tracks/Scat